

WHAT IS CLAIMED IS:

1. A device for collecting a specimen from a mass of tissue, comprising:

a shaft defining a proximal end and a distal end;

a specimen collection assembly disposed near the distal end, the specimen collection assembly including a flexible membrane configured to collect the specimen;

5 a specimen management assembly, the specimen management assembly being coupled to the specimen collection assembly and configured to draw the specimen collected in the flexible membrane toward the shaft.

2. The device of claim 1, wherein the flexible membrane is configured to isolate the collected specimen from a mass of tissue surrounding the specimen.

10 3. The device of claim 1, wherein the specimen management assembly is coupled to the flexible membrane.

4. The device of claim 3, wherein the specimen management assembly is configured to selectively pull on the flexible membrane in at least one direction that is parallel to the shaft.

15 5. The device of claim 4, wherein the specimen management assembly is configured to selectively pull on the flexible membrane both toward the distal end of the shaft and toward the proximal end of the shaft.

20 6. The device of claim 4, wherein the specimen management assembly is configured to selectively pull on the flexible membrane only toward the distal end of the shaft.

7. The device of claim 4, wherein the specimen management assembly is

configured to selectively pull on the flexible membrane only toward the proximal end of the shaft.

8. The device of claim 7, wherein a portion of the flexible membrane is attached to the distal end of the shaft.

5 9. The device of claim 1, wherein the specimen management assembly includes at least one wire coupled to the flexible membrane.

10. The device of claim 9, wherein the at least one wire is configured to selectively pull on the flexible membrane in at least one direction that is parallel to the shaft.

10 11. The device of claim 9, wherein the at least one wire is configured to selectively pull on the flexible membrane both toward the distal end of the shaft and toward the proximal end of the shaft.

12. The device of claim 9, wherein the at least one wire is configured to selectively pull on the flexible membrane only toward the distal end of the shaft.

15 13. The device of claim 9, wherein the at least one wire is configured to selectively pull on the flexible membrane only toward the proximal end of the shaft.

14. The device of claim 13, wherein a portion of the flexible membrane is secured to the distal end of the shaft.

15. The device of claim 9, further including a specimen cutting assembly, the specimen cutting assembly being configured to cut the specimen from a mass of tissue.

20 16. A method of collecting a specimen from a mass of tissue, comprising the steps of:

providing a tissue collection device comprising a shaft having a proximal and a distal end; a specimen collection assembly disposed near the distal end, the specimen collection

assembly including a flexible membrane configured to collect the specimen;

inserting the tissue collection device within the mass of tissue;

collecting the specimen within the flexible membrane, and

drawing the flexible membrane and the collected specimen toward the shaft.

5 17. The method of claim 16, further including a step of retracting the tissue collection device from the mass of tissue with the specimen collected within the flexible membrane and drawn toward the shaft.

 18. The method of claim 16, wherein the tissue collection device in the providing step includes a specimen management assembly coupled to the flexible membrane and
10 wherein the drawing step is carried out by acting on the specimen management assembly.

 19. The method of claim 18, wherein the specimen management assembly includes at least one wire attached to the flexible membrane.

 20. The method of claim 16, wherein the collecting step isolates the collected specimen from a mass of tissue surrounding the specimen.

15 21. The method of claim 16, wherein the drawing step selectively pulls on the flexible membrane in at least one direction that is parallel to the shaft.

 22. The method of claim 16, wherein the drawing step selectively pulls on the flexible membrane both toward the distal end of the shaft and toward the proximal end of the shaft.

20 23. The method of claim 16, wherein the drawing step selectively pulls on the flexible membrane only toward the distal end of the shaft.

 24. The method of claim 16, wherein the drawing step selectively pulls on the flexible membrane only toward the proximal end of the shaft.

25. The method of claim 18, wherein the specimen management assembly includes at least one wire coupled to the flexible membrane and wherein the drawing step includes pulling on the at least one wire.

26. The method of claim 25, wherein the drawing step includes pulling on the at least one wire in at least one direction that is parallel to the shaft.

27. The method of claim 26, wherein the drawing step includes pulling on the at least one wire both toward the distal end of the shaft and toward the proximal end of the shaft.

28. The method of claim 26, wherein the drawing step includes pulling on the at least one wire only toward the distal end of the shaft.

29. The method of claim 26, wherein the drawing step includes pulling on the at least one wire only toward the proximal end of the shaft.

30. The method of claim 16, wherein the tissue collection device in the providing step further includes a specimen cutting assembly and wherein the method further includes a step of acting upon the specimen cutting assembly to cut the specimen from the mass of tissue.

31. The method of claim 30, wherein the providing step provides the tissue collection device with the specimen cutting assembly coupled to the specimen collection assembly.

32. A device for collecting a specimen from a mass of tissue, comprising:
a shaft;

a specimen collection assembly configured to slide between the proximal and distal ends of the shaft and to selectively assume an expanded configuration and a retracted

configuration, the specimen collection assembly including a flexible membrane configured to collect the specimen and to isolate the collected specimen from the mass of tissue.

33. The device of claim 32, wherein a portion of the flexible membrane is attached to the distal end of the shaft.

5 34. The device of claim 32, wherein the specimen collection assembly includes a cutting portion for cutting the specimen from a surrounding tissue.

35. The device of claim 32, wherein the flexible membrane is configured to isolate the collected specimen from the mass of tissue.

10 36. The device of claim 32, wherein the shaft defines a proximal and a distal end and a channel between the proximal and distal ends and wherein the specimen collection assembly is configured to slide within the channel between the proximal and distal ends of the shaft.

15 37. The device of claim 32, wherein the shaft defines a proximal and a distal end and comprises a rail between the proximal and distal ends and wherein the specimen collection assembly is configured to slide on the rail between the proximal and distal ends of the shaft.

38. A method of collecting a specimen from a mass of tissue, comprising the steps of:

20 providing a tissue collection device comprising a shaft and a specimen collection assembly, the shaft defining a proximal and a distal end, the specimen collection assembly being configured to slide between the proximal and distal ends and to selectively expand away from the shaft and to contract toward the shaft, the specimen collection assembly including a flexible membrane configured to collect the specimen;

inserting the tissue collection device within the mass of tissue;

expanding the specimen collection assembly and collecting the specimen within the flexible membrane;

retracting the specimen collection assembly with the specimen collected within the flexible membrane;

sliding the retracted specimen collection assembly toward the proximal end of the shaft with the specimen collected within the flexible membrane.

39. The method of claim 38, wherein the tissue collection device in the providing step includes a tissue cutting portion to cut the specimen from the mass of tissue.

40. The method of claim 39, wherein the collecting step collects the specimen cut from the cutting portion.

41. The method of claim 38, further including a step of sliding the specimen collection assembly toward the distal end of the shaft before the inserting step.

42. The method of claim 38 wherein, in the inserting step, the tissue collection device is in a configuration in which the specimen collection assembly is slid toward the distal end of the shaft.

43. The method of claim 38, further comprising a step of sliding the specimen collection assembly toward the distal end of the shaft before the expanding and collecting steps.

44. The method of claim 38, wherein the tissue collection device in the providing step is configured such that a portion of the flexible membrane is attached to the distal end of the shaft, and wherein the sliding step draws the specimen collected within the flexible membrane toward the shaft.

45. The method of claim 38, further comprising the step of retracting the tissue collection device from the mass of tissue with the specimen collection assembly near the proximal end of the shaft and the specimen collected within the flexible membrane.

46. The method of claim 38, wherein the retracting step isolates the specimen collected within the flexible membrane from the mass of tissue.

47. The method of claim 38 wherein, in the providing step, the shaft defines a channel between the proximal and distal ends of the shaft and wherein the sliding step slides the retracted specimen collection assembly within the channel.

48. The method of claim 38 wherein, in the providing step, the shaft includes a rail between the proximal and distal ends of the shaft and wherein the sliding step slides the retracted specimen collection assembly on the rail.

49. A method of collecting a specimen from a mass of tissue, comprising the steps of:

providing a tissue collection device comprising a shaft defining a proximal and a distal end, a sleeve disposed over at least a portion of the shaft and a specimen collection assembly configured to selectively expand away from the shaft and to retract toward the shaft and including a flexible membrane configured to collect the specimen, at least a portion of the flexible membrane being disposed between the shaft and the sleeve;

inserting the tissue collection device within the mass of tissue;

expanding the specimen collection assembly and collecting the specimen within the flexible membrane, the expanding specimen collection assembly pulling the flexible membrane out from between the shaft and the sleeve, and

retracting the specimen collection assembly with the specimen collected within the

flexible membrane.